

WHAT IS CLAIMED IS:

1. A gastric banding apparatus for treatment of obesity in a patient, comprising:

a gastric band suitable for laparoscopic placement around the
5 stomach of the patient to create a stoma; said gastric band having an
inflatable chamber for adjusting an inner circumference of the band;

a pressurized fluid reservoir for providing fluid to inflate said
inflation chamber;

10 a first valve between said pressurized fluid reservoir and said
inflatable chamber;

a second valve between said inflatable chamber and an outlet;

15 a controller for actuating said first and second valves thereby
increasing or decreasing the fluid volume in said inflatable chamber to adjust
the inner circumference of the band; said controller being remotely
controllable from outside of the patient.

2. The gastric banding apparatus according to claim 1, further comprising a
remote control for remotely transmitting control signals to the controller.

20 3. The gastric banding apparatus according to claim 1, further comprising a
receiver for receiving control signals wherein said controller actuates said first and
second valves in response to the received signals.

25 4. The gastric banding apparatus according to claim 1, further comprising a
power source for providing power to said controller, said first valve, and said second
valve.

5. The gastric banding apparatus according to claim 4, wherein said
power source is an induction coil.

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6. The gastric banding apparatus according to claim 4, wherein said
power source is a battery.

7. The gastric banding apparatus according to claim 4, wherein said power source is a capacitor.

8. The gastric banding apparatus according to claim 7, wherein said 5 capacitor is piezo-electrically charged.

9. The gastric banding apparatus according to claim 1, wherein said outlet is the peritoneal cavity of the patient.

10 10. The gastric banding apparatus according to claim 1, wherein said outlet is a waste reservoir.

11. The gastric banding apparatus according to claim 10, wherein said waste reservoir is negatively pressurized.

15 12. The gastric banding apparatus according to claim 1, wherein said inflatable chamber is substantially coextensive with an inner stomach-facing surface of said gastric band.

20 13. The gastric banding apparatus according to claim 12, wherein said inflatable chamber does not wrinkle or fold when adjusted, thereby presenting a substantially smooth contour along said inner circumference.

25 14. The gastric banding apparatus according to claim 1, wherein said gastric band forms a smoothly surfaced circle.

15. The gastric banding apparatus according to claim 14, wherein said gastric band is lockable in said smoothly surfaced circle.

30 16. The gastric banding apparatus according to claim 1, wherein the fluid in said pressurized fluid reservoir is saline.

17. A method of treating obesity in a patient, comprising the steps of:

implanting a gastric banding device around the stomach of the patient to create a stoma; said gastric banding device having an inflatable chamber;

remotely transmitting control signals from outside of the patient to a controller of the gastric banding device inside of the patient; and

5 actuating a first valve, between a pressurized fluid reservoir and said inflatable chamber, or a second valve, between said inflatable chamber and an outlet, on the basis of the control signals received by the controller to increase or decrease the fluid volume in said inflatable chamber, thereby adjusting an inner circumference of the band.

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18. The method according to claim 17, wherein the control signals are remotely transmitted using a remote control.

19. The method according to claim 17, wherein the controller has a receiver for receiving the control signals.

20. The method according to claim 17, wherein said inflatable chamber is substantially coextensive with an inner stomach-facing surface of said gastric band.

21. The method according to claim 17, wherein said gastric band forms a smoothly surfaced circle.

22. A gastric banding apparatus for treatment of obesity in a patient, comprising:

25 a laparoscopically implantable gastric band having an inflatable member for adjusting an inner circumference of the band;

a reservoir for providing pressurized fluid to inflate said inflation member;

a valve between said reservoir and said inflatable member;

30 a controller for opening and closing said valve thereby increasing the volume of said inflatable member to decrease the inner circumference of the band.

23. The gastric banding apparatus according to claim 22, further comprising a valve between said inflatable member and an outlet; said controller opening and closing said valve between said inflatable member and an outlet thereby decreasing the volume of said inflatable member to increase the inner circumference
5 of the band.

24. The gastric banding apparatus according to claim 23, wherein the controller is remotely controllable from outside of the patient.